LG

WASHING MACHINE
SERVICE MANUAL

CAUTION

READ THIS MANUAL CAREFULLY TO DIAGNOSE TROUBLES
CORRECTLY BEFORE OFFERING SERVICE.

MODEL : WD-14311(6)RD/WD-1481RD
WD-12311(6)RD
WD-14312(7)RD/WD-14310(5)RD
WD-12312(7)RD/WD-12310(5)RD
WD-10PFD, 10PFP
WD-14311RDA
WD-1485RD/WD-1488RD
AWD-14312(7)RD
AWD-12312(7)RD

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1. SPECIFICATION

ITEM		WD-1481RD/WD-14311RDA, WD-14311(6)RD/WD-12311(6)RD/ WD-14312(7)RD/WD-12312(7)RD/ WD-14310(5)RD/WD-12310(5)RD/ AWD-14312(7)RD/AWD-12312(7)RD	WD-1485RD	WD-1488RD	WD-10PFD, 10PFP WD-14311RD
POWER SUPPLY		220V-240V~, 50Hz			110V~, 60Hz
PRODUCT WEIGHT		66kg			
ELECTRICITY CONSUMPTION	WASHING	140W			
	SPIN	300W			
	FAN MOTOR	25W			
	DRAIN MOTOR	40W			
	WASH HEATER	2000W	2100W		1200W
	DRY HEATER	1500W			1000W
REVOLUTION SPEED	WASH	45rpm			
	SPIN	WD-1481RD/WD-14311RDA/WD-14311(6)RD/WD-14312(7)RD/ WD-14310(5)RD/AWD-14312(7)RD/WD-10PFD/WD-10PFP/WD-1488RD			400/800/1000/1400 rpm
		WD-12311(6)RD/WD-12312(7)RD/WD-12310(5)RD/AWD-12312(7)RD			400/800/1000/1200 rpm
OPERATION WATER PRESSURE		0.3-10kgf/cm^2 (30-1000kPa)		0.3-10kgf/cm^2 (30-800kPa)	0.3-10kgf/cm^2 (30-1000kPa)
CONTROL TYPE		Electronic			
WASH CAPACITY		8kg/8.5kg/10.1kg(Cotton)			10kg/10.1kg
DRY CAPACITY		4kg/4.2kg/10.1kg(Cotton)			6kg/10.1kg
DIMENSION		600mm(W)×645mm(D)×850mm(H)			
WASH PROGRAM		Cotton, Cotton-Eco, Synthetic, Delicate, Wool/Silk, Hand Wash, Quick 30, Duvet, Drain			
RINSE		Normal / Rinse$^+$ / Rinse^{++} / Normal+Hold / Rinse$^+$+Hold			
DOOR SWITCH TYPE		Bi-Metal type			
WATER LEVEL		10 steps (by sensor)			
RESERVATION		From 3 hours to 19 hours			
SENSING OF THE LAUNDRY AMOUNT		Adapted			
FUZZY LOGIC		Adapted			
DISPLAY OF THE REMAINING TIME		Adapted			
ERROR DIAGNOSIS		10 items			
POWER AUTO OFF		Adapted			
CHILD LOCK		Adapted			
AUTO RESTART		Adapted			
TIME SAVE		Adapted			

2. FEATURES & TECHNICAL EXPLANATION

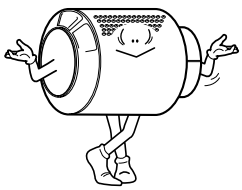
2-1.FEATURES

Automatic process from washing to drying.

Automatic process from washing to drying can be selected easily.
Washing capacity : 8kg/8.5kg/10.1kg(Cotton)/10kg
Drying capacity : 4kg/4.2kg/10.1kg(Cotton)/6kg

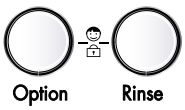
More economical by Intelligent Wash System

Intelligent Wash System detects the amount of load and water temperature, and then determines the optimum water level and washing time to minimize energy and water consumption.



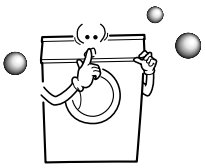
Direct Drive system

The advanced Brushless DC motor rotates the Drum directly without belt and pulley.



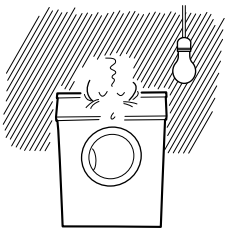
Child-Lock

The Child-Lock system has been developed to prevent children from pressing any button to change the program during operation.



Low noise speed control system

By sensing the amount of load and balance, evenly distributes load to minimize the spinning noise level.

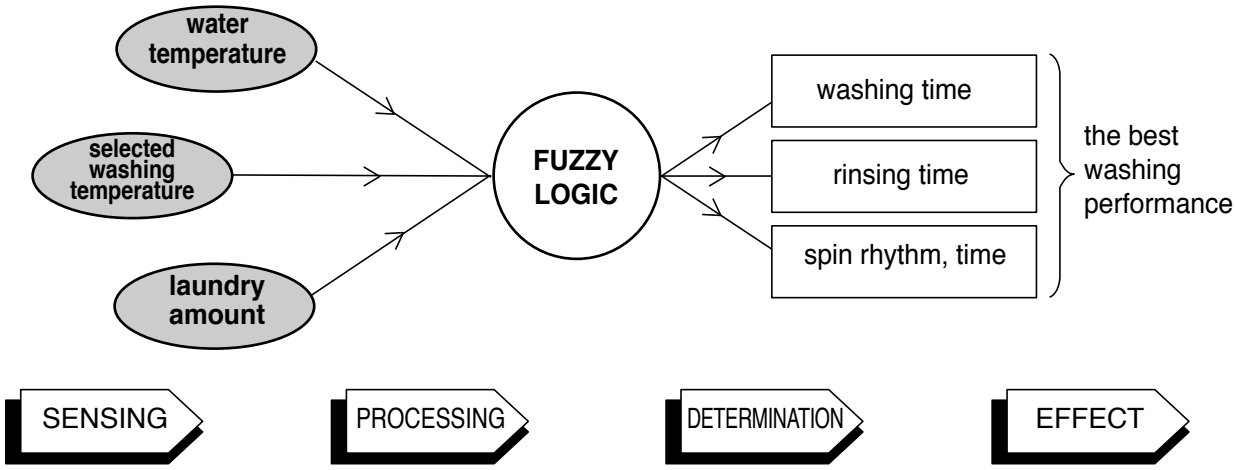


Auto Restart

Although the washing machine is turned off by a power failure, it restarts automatically in its stopped process when power is supplied again. And it will be the same when the machine unplugged in operation is plugged in again.

2-2.DETERMINE WASHING TIME BY FUZZY LOGIC

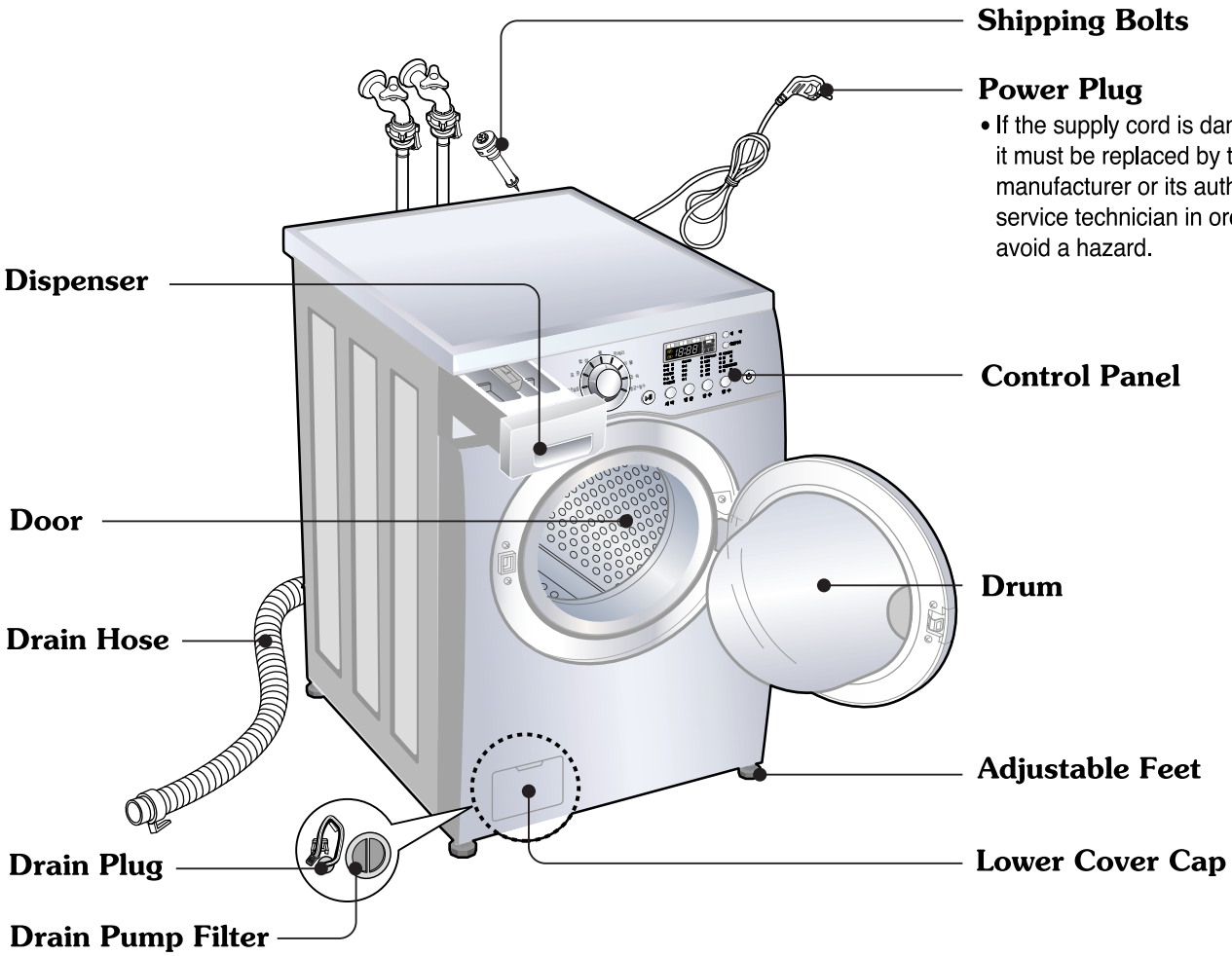
To get the best washing performance optimal time is determined by sensing of water temperature, selected washing temperature and laundry amount.



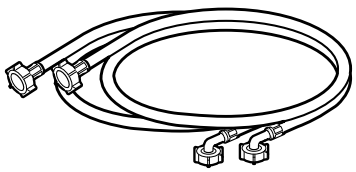
2-3.WATER LEVEL CONTROL

- This model adopts a pressure sensor which can sense the water level in the tub.
- Water supply is stopped when the water level to the preset level, then washing program proceeds.
- Spinning does not proceed until the water in the tub reduces to a certain level.

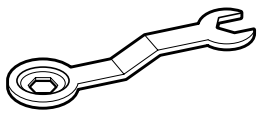
3. PARTS IDENTIFICATION



■ ACCESSORIES



Inlet hose(1EA) ※Option 2EA

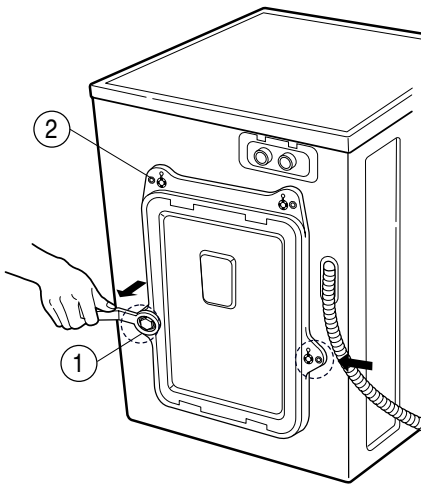
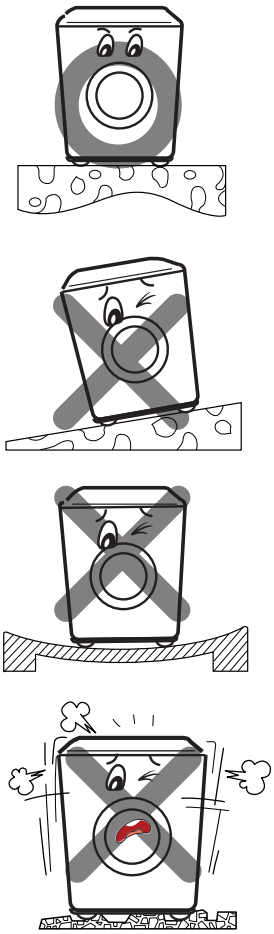
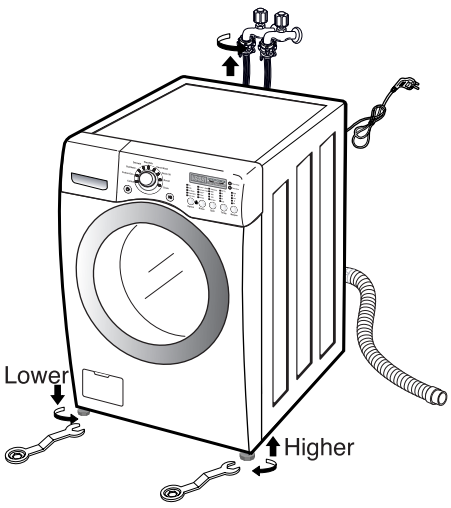


Spanner

4. INSTALLATION

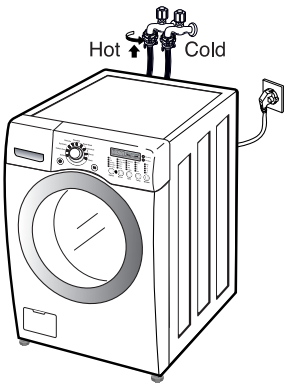
1 Before servicing ask troubles of customers
2 Check the adjustment(power supply is 220-240V~, remove the transit bolts....)
3 Check the troubles referring to the trouble shooting.
4 Decide service steps referring to disassembly instructions.
5 And then, service and repair.
6 After servicing, operate the appliance whether it works O·K or NOT.

■ STANDARD INSTALLATION
The appliance should be installed as follows.

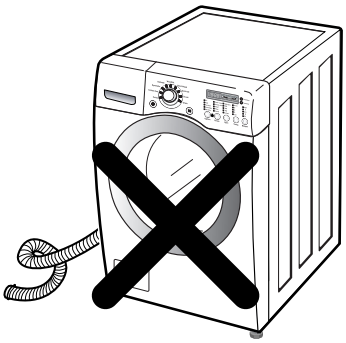
REMOVE THE TRANSIT BOLTS	INSTALL THE APPLIANCE ON FLAT AND FIRM SURFACE	ADJUST THE HORIZONTAL
• Remove the transit bolts (4EA:①)with supplied spanner. • Keep the transit bolts and spanner for future use. • Insert the 4 caps provided into the hole 		• Turn the leveling feet to set the appliance horizontally.  • The appliance goes up by rotating the feet clockwise. • The appliance come down by rotating the feet counter clockwise.

■ HOW TO CONNECT INLET HOSE

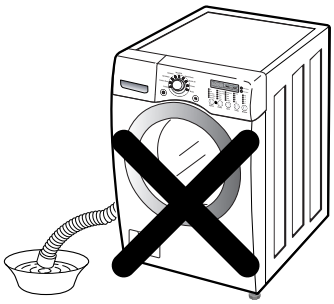
- Check that the rubber packing is inside of the valve connector.
- Connect the inlet hose firmly to prevent leak.



■ CONNECT DRAIN HOSE



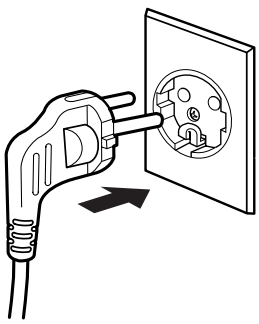
· Make sure that the hose is not twisted.



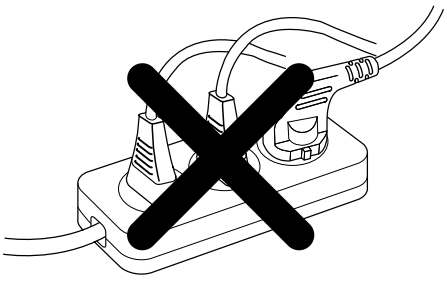
· Avoid submerging the end of the hose.

※ The drain hose should be placed under 100cm from the floor.

■ CONNECT POWER PLUG



· Connect the power plug to the wall outlet.



· Avoid connecting several electric devices,
It may be the cause of the fire.

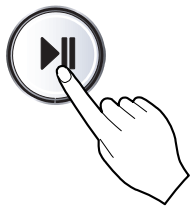
7 TEST OPERATION

1 Preparation for washing.

- Connect the power plug to the outlet.
- Connect the inlet hose.

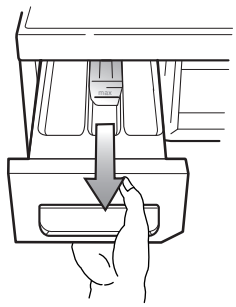
2 Press the POWER button.

3 Press the Start/Pause button.



- In case of Coloreds program.

4 Check the water supply.

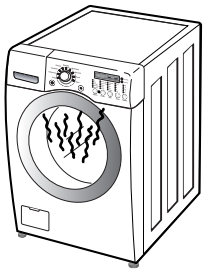


· Check if water is supplied through the detergent dispenser.

5 Check automatic reverse turn.

· Check if the drum rotates clockwise and counterclockwise.

6 Check the water heating.

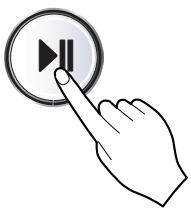


· Press the Temp. button and the present temperature will be displayed.

7 Check drain and spin

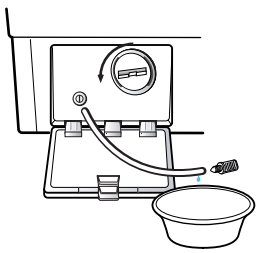
· Turn off Wash and Rinse after pressing the Start/Pause button and start the machine again.
· Check drain and spin.

8 Power off and open the door



· Power off and then power on.
· Check if the door can be opened after 3 minutes.

9 Water removal



· If SVC is needed during check, remove the remaining water by pulling out the hose cap.

5. OPERATION

• POWER button

• Use this button to turn the power **On/Off**.

• EST.TIME REMAINING

• This display shows:

a) the estimated time remaining in the cycle when operating.

b) an error code when an error has been detected.

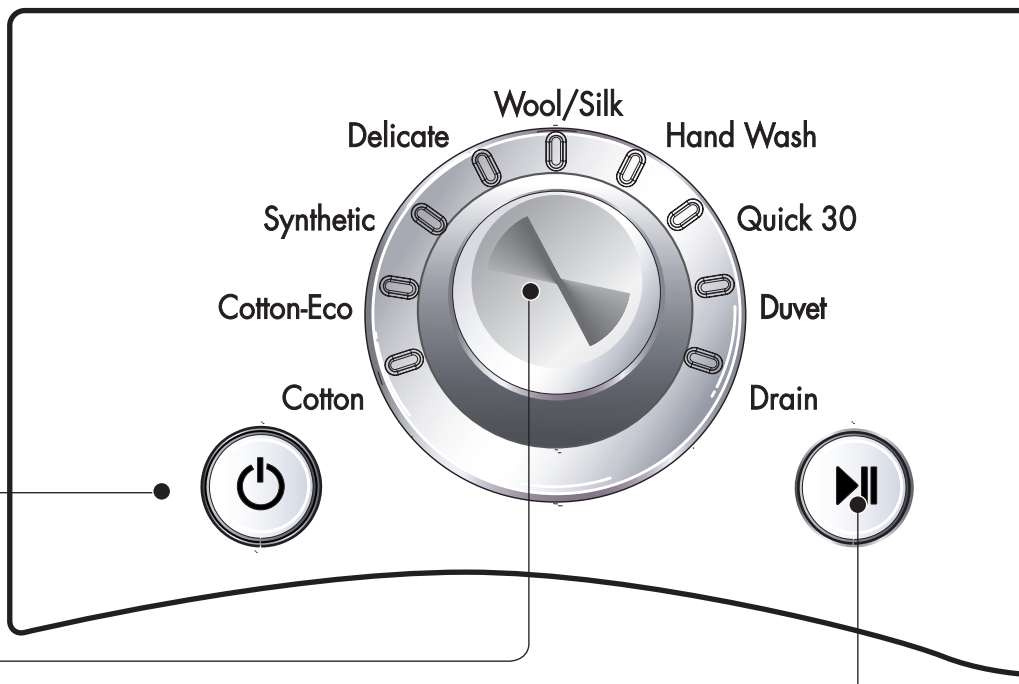
• CHILD LOC

• Use this option to pre
Press and hold PRE
lock/unlock control.

• When Child lock is se
buttons are disabled
can lock the washer

• CYCLE SELECTOR knob

• Rotate the **Cycle selector knob** to select the cycle designed for different types of fabric and soil levels.



• START/PAUSE button

• Use this button to Start/ Stop the washer.

• OPTION button

• **Pre Wash**: Use this option for loads that need pretreatment. It add 16 minutes prewash and drain.

• **Rinse+Spin**: Use this option to rinse and then spin.

• **Soak**: Use this mode to wash normal clothes or think and heavy clothes which are excessively dirty.

• **Spin Only**: When you want Spin only, select this option.

• **Dry Only**: When you want Dry only, select this option.

CK

event unwanted use of the washer.
WASH button for 3 seconds to

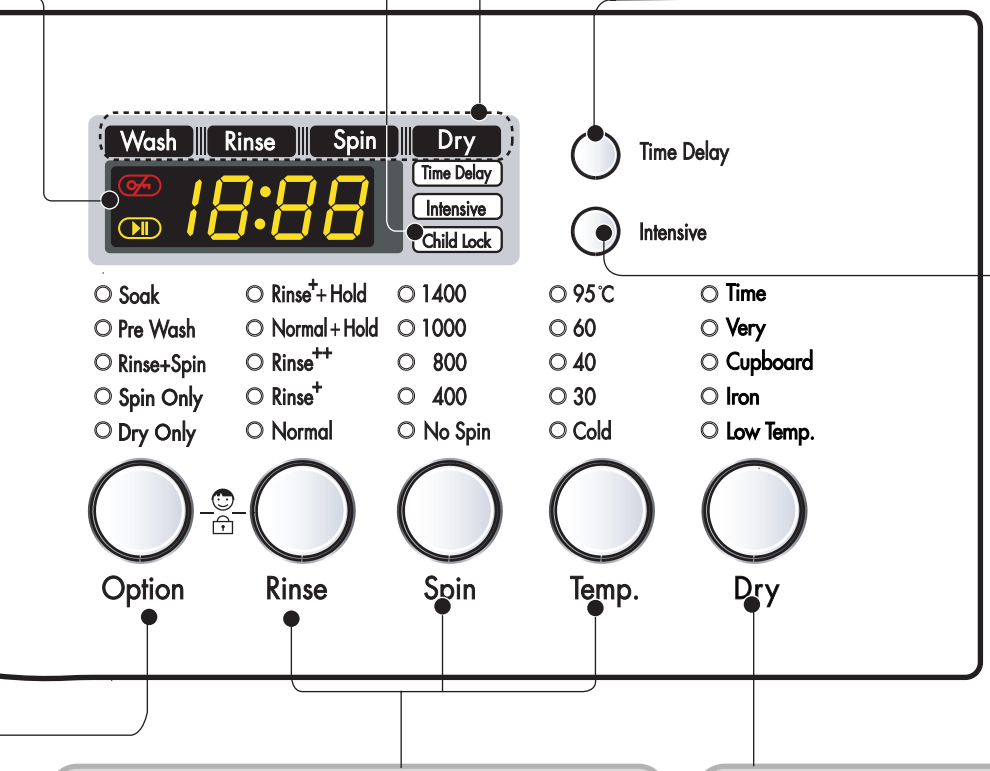
et, CHILD LOCK lights and all
except the Power button. You
while it is operating.

• STATUS INDICATOR

- These lights show which portion of the cycle the washer is operating.

• TIME DELAY

- Allows the start of any cycle to be delayed for 3~19 hours.



• INTENSIVE

- If the laundry is heavily soiled “Intenive” option is effective.
- By selecting the Intensive option, the wash time may be extended, depending on the program selected.
- To use this option press the Intensive button once before the wash program is started.

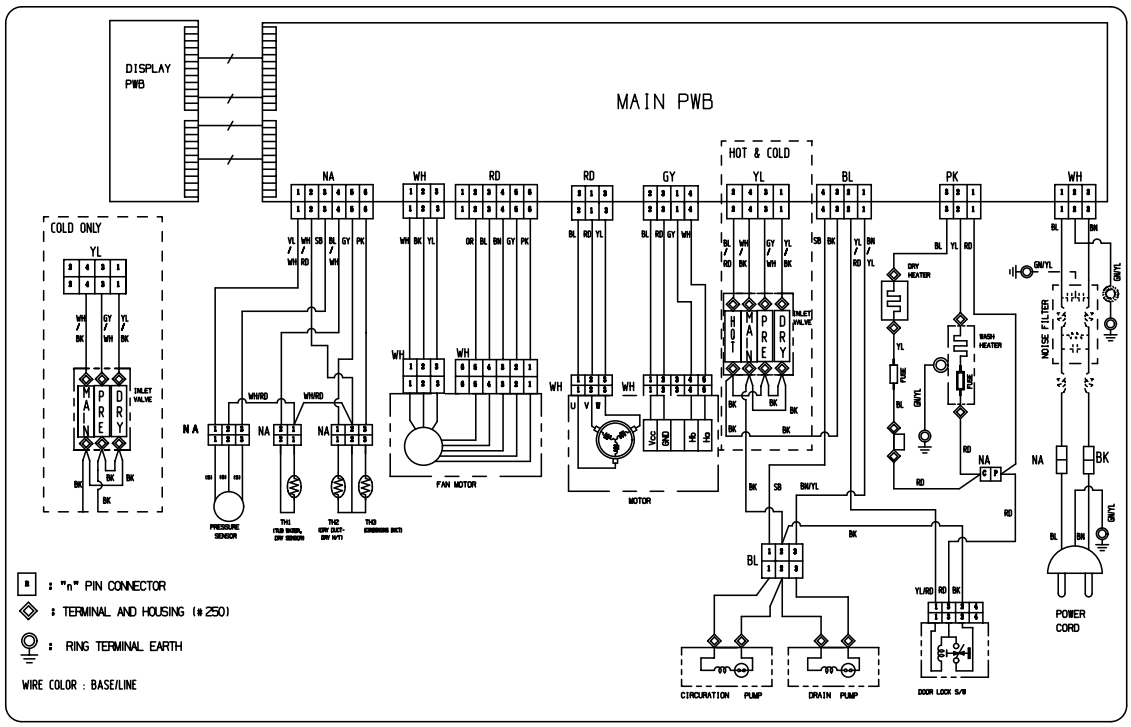
• Rinse, Spin, Temp. Button

- Select a water temperature based on the type of load you are washing.
- To change the spin speed, press the Spin Speed button repeatedly to cycle through available options.
- To change the soil level, press the Soil Level button repeatedly until the desired setting is on.

• DRY Button

- Dry programs selected by pressing the Dry button.
- By pressing the button [Cupboard – Very – Time – Low Temp.– Iron] can be selected.

6. WIRING DIAGRAM / PROGRAM CHART



PRGRAM CHART

* Water Supply : W·S * Intermittent Spin : I·S * Disentangle : D·T

COURSE / STEP	Wash							Rinse																Spin			Dry	END	AUTO OFF	**Approx Working Time (Minutes)
	Pre				Main			1				2				3				Extra & Stain(4~6)										
	W·S	Wash	Drain	I·S	W·S	Wash Heat	Wash	Drain	I·S	W·S	Rinse	Drain	I·S	W·S	Rinse	Drain	I·S	W·S	Rinse	Drain	I·S	W·S	Rinse	Drain	Spin	D·T				
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	20	20	
TIME (SEC.)	60	(분)	60	180	120		(분)	60	180	120	180	60	240	120	180	60	180	120	180	60	180	120	180	60	480	180	분	20	20	
Cotton		8					12 / 42																							About 1:50
Synthetic		8					12 / 42																							About 1:15
Wool/Silk							39																							About 55
Delicate							39																							About 1:05
Duvet							39																							About 1:00
Quick 30							12																							About 30
Cotton-Eco		8					1 / 40																							About 2:00
Hand Wash																														About 2:50
Rinse+Spin																														About 33
Wash		8					12 / 42																							About 46
Rinse																														About 28
Spin																														About 17
Dry																														About 30

* ■■■■■ Basic Cycle
* ▒▒▒▒▒ Optional Cycle
* Pre-Setting Time : Water Supply - 120 sec.
Drain - 60 sec.

* Wash time is in minutes.
** The total working time will vary with the load size, water temperature and ambient temperature.

7. TROUBLE SHOOTING

7-1.BEFORE SVC CHECKING

■ Be careful of electric shock or disconnecting the parts while trouble shooting.

■ Voltage of each terminal in 220-240V~ and DC while applying an electric current.

7-2.QC TEST MODE.

① Pressing Rinse, and Spin button simultaneously.

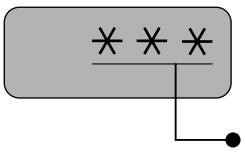
② Press the Power ⏻ button, while the above condition.

③ Press the Start/Pause button as follows.

Number of times the Start/Pause button is pressed	Check Point	Display Status
None	Turns on all lamps and locks the door.	18:88
1 time	Tumble clockwise.	rpm (40~50)
2 times	Low speed Spin.	rpm (600~650)
3 times	High speed Spin.	rpm (1300~1350)
4 times	Inlet valve for prewash turns on.	Water level frequency (25~65)
5 times	Inlet valve for main wash turns on.	Water level frequency (25~65)
6 times	Inlet valve for hot water turns on.	Water level frequency (25~65)
7 times	Inlet valve for dry water turns on.	Water level frequency (25~65)
8 times	Tumble counterclockwise.	rpm (40~50)
9 times	Heater turns on for 3 sec.	Water temperature
10 times	Circulation pump turns on.	Water level frequency (25~65)
11 times	Drain pump turns on.	Water level frequency (25~65)
12 times	Power off and unlock the door.	Turn off all lamps.

7-3.HOW TO KNOW THE WATER LEVEL FREQUENCY

* Press the Rinse and Spin button simultaneously.



The digits means water level frequency(10^{-1} kHz)

ex) 241 : Water level frequency = 241× 10^{-1} kHz

=24.1 kHz

7-4.HOW TO KNOW TO TEMPERATURE OF EACH THERMISTOR AT OPERATING CONDITION.

■ Thermistor in tub : Press the [Temp.] button.

■ Thermistor in dry duct : Press the [Dry] button.

■ Thermistor in condensing duct : Press the [Intensive] and [Spin] button simultaneously.

7-5.ERROR DISPLAY.

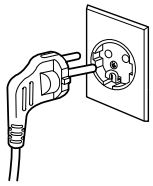
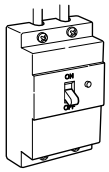
- If you press the Start/Pause button in error condition, any error except '*PE*' will disappear and the machine will change into pause status.
- In case of 『*PE*』, 『*tE*』, 『*dHE*』, if the error is not resolved within 20 sec., and in case of other errors, if the error is not resolved within 4 min., power will be turned off automatically and the error only will be blinked. But in case of 『*FE*』, power will not be turned off.

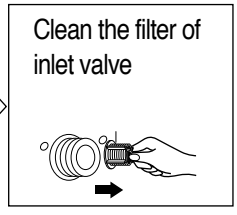
	ERROR	SYMPTOM	CAUSE
1	WATER INLET ERROR		• Not reached to the water level(246)within 8 minutes after water supplied or not reached to the preset water level within 25 minutes.
2	DRAIN ERROR		• Not fully drained within 10 minutes.
3	OVERFLOW ERROR		• Water is over flowing(over 8 level). ※ If is displayed, drain pump operates to drain water automatically.
4	SENSOR PRESSURE S/W ERROR		• The sensor pressure switch is out of order.
5	DOOR OPEN ERROR		• In case of operating the reservation function or the other function with door opened. Close the door, then the error display is resolved. • The door switch is out of order.
6	IMBALANCE ERROR		• The appliance is tilted. • Laundry is gatherd to one side.
7	HEATING ERROR		• The THERMISTOR is out of order.

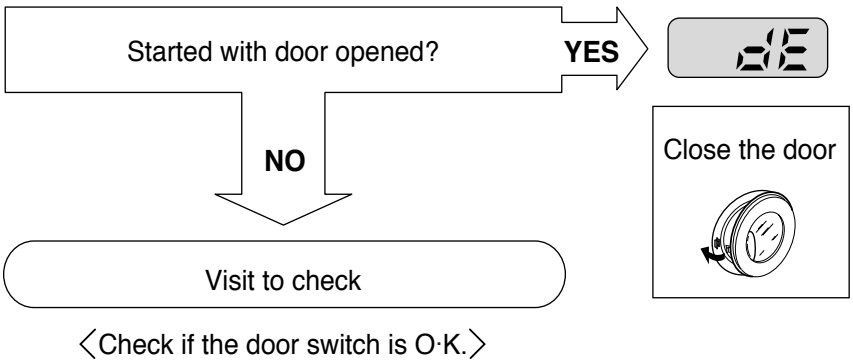
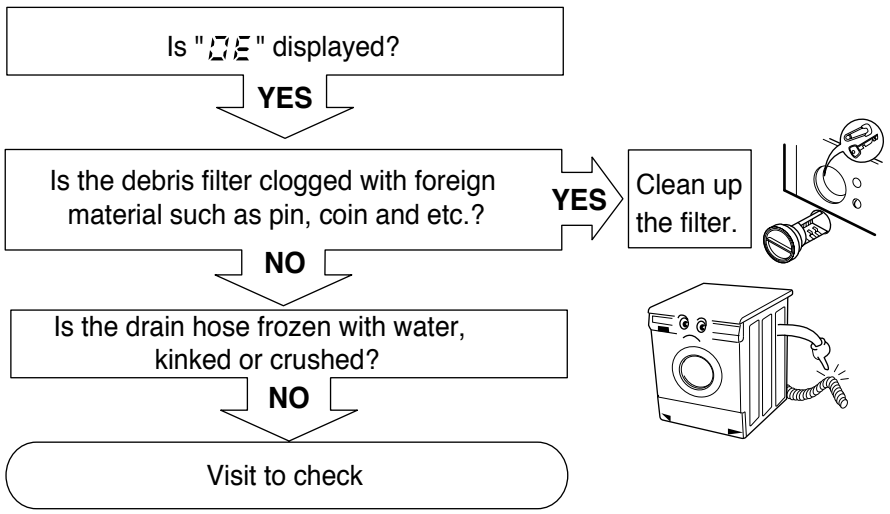
	ERROR	SYMPTOM	CAUSE
8	CURRENT ERROR		• MAIN PWB ASSEMBLY is out of order ☞ Replace the MAIN PWB ASSEMBLY • Winding in the STATOR ASSEMBLY is short-circuited. ☞ Replace the STATOR ASSEMBLY • "CE " is dispplayed during a high spin ☞ Replace the LEAD WIRE ASSEMBLY (MOTOR)
9	MOTOR ERROR		• The connector in the LEAD WIRE ASSEMBLY is not connected to the connnector of STATOR ASSEMBLY ☞ Reconnect or repair the connector • The hall sensor is out of order/defective. ☞ Replace the STATOR ASSEMBLY
10	DRY HEATOR ERROR		• The Dry Heater is out of order ☞ Replace the Dry Heater • The Connector of the Dry Heater is not connected properly to the connector in the Main PWB ASSEMBLY ☞ Reconnect or repair the connector • The Dry fan motor is out of order ☞ Replace the fan Motor.

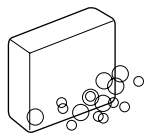
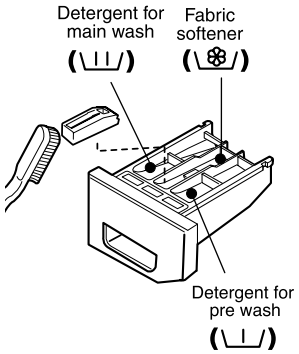
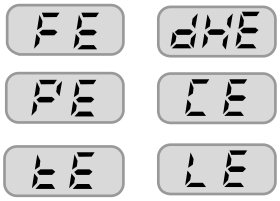
8. ERROR DIAGNOSIS AND CHECK LIST

8-1.DIAGNOSIS AND ANSWER FOR ABNORMAL OPERATION

<table>
<tr><th>SYMPTOM</th><th>GUIDE FOR SERVICE CALL</th></tr>
<tr><td>NO POWER</td><td>Is the power plug connected firmly to 220-240V~ outlet?
YES
Power failure? or Breaker opened?
NO
Visit to check
 
  </td></tr>
<tr><td>Water inlet trouble
 </td><td>Is " 1E " displayed?
YES
Is the tap opened?
YES
Is the tap frozen?
NO
Is the water supply shut-off?
NO
Is filter in the inlet valve clogged with foreign material?
YES
Clean the filter of inlet valve
NO
Visit to check

  </td></tr>
</table>

SYMPTOM	GUIDE FOR SERVICE CALL
• Door does not open • Error displayed on the program 	
• DRAIN TROUBLE 	

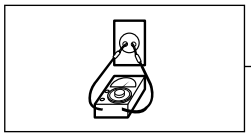
SYMPTOM	GUIDE FOR SERVICE CALL
◦ Suds overflow from the appliance. (In this condition, wash and spin do not operate normally)	Is low-sudsing detergent for the drum washing machine used? **YES** Is the proper amount of detergent used as recommended? **YES** Recommend to reduce the using amount of detergent.  LOW-SUDSING ✳ This appliance has the automatic suds sensing function which operates under much suds condition for good rinse and preventing overflow. ✳ When much suds are sensed, suds removing function such as drain, water input and pause will operate without rotating the drum.
◦ No effect of softener	Is softener put in the correct compartment of the drawer? **YES** Is the drawer closed during wash? **YES** Is the softener cap clogged? **YES** Explain how to use softener **< Clean the compartment for softener >** 
 	Visit to check

8-2.FAULT DIAGNOSIS AND TROUBLE SHOOTING

CAUTION

1. Be careful of electric shock or disconnecting the parts while trouble shooting.
2. First of all, check the connection of each part terminal with wiring diagram.
3. If you replace the MAIN PWB ASSEMBLY, Put in the connectors correctly.

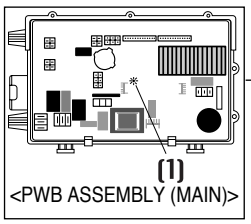
NO POWER



When measuring the voltage of the outlet, is the voltage AC 220-240V~?

NO → Check the fuse?

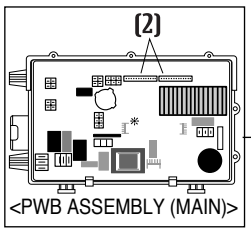
YES ↓



Is the led(1) on?

NO → Replace MAIN PWB ASSEMBLY

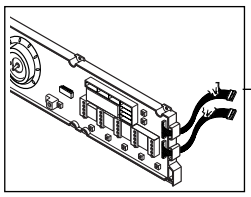
YES ↓



Is connector(2) disconnected or disassembled?

YES → Reconnect the PWB ASSEMBLY

NO ↓



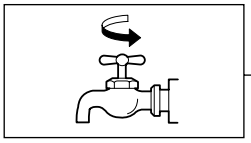
Is wire of the PWB ASSEMBLY disconnected?

YES → Reconnect the PWB ASSEMBLY

NO ↓

Replace PWB ASSEMBLY

NO WATER SUPPLY

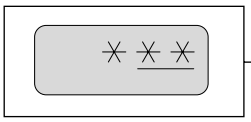


Is water supply shut-off?

NO

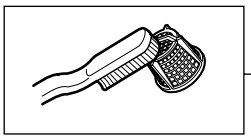
Is the tap opened? **NO** → Open the tap.

YES



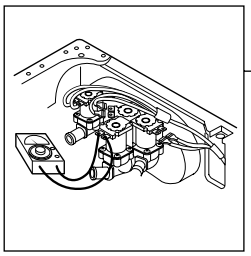
When you press both Rinse button and Spin button simultaneously, is the water level frequency below 240? **YES** → Check the AIR CHAMBER and the tube clogged with impurity.

NO



Is the inlet valve filter clogged with impurity? **YES** → Clean the filter.

NO

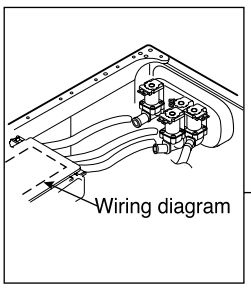


Is resistance between each terminal of INLET VALVE ASSEMBLY is 2~8 kΩ ? **NO** → Replace the INLET VALVE ASSEMBLY.

YES

Check the voltage of the inlet valve connector 220-240V~.
(Refer to 7-2 QC TEST MODE) **NO** → Replace the MAIN PWB ASSEMBLY

DETERGENT DOES NOT FLOW IN

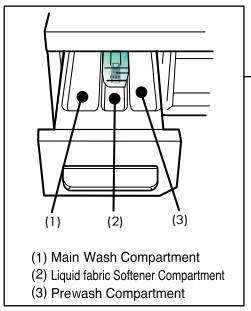


Is water supplied? **NO** → Refer to 「NO WATER SUPPLY」

YES

Are replaceptacles correctly connected to the terminals of the INLET VALVE ASSEMBLY? **NO** → Check the wiring on the dispenser.

YES



Is detergent put in the correct compartment of the drawer? **NO** → Put the detergent in the correct position

PRE+MAIN ● | | ●

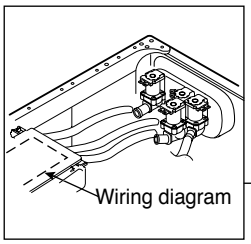
MAIN WASH ● | |

● : Detergent

YES

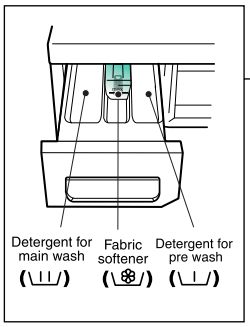
Is the detergent hardened? **YES** → Clean the drawer.

SOFTENER DOES NOT FLOW IN

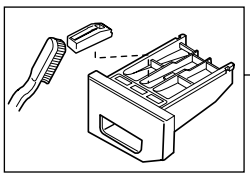


Is water supplied?
- NO → Refer to 「NO WATER SUPPLY」
- YES ↓

Are receptacles correctly connected to the terminals of the INLET VALVE ASSEMBLY?
- NO → Check the wiring on the dispenser.
- YES ↓

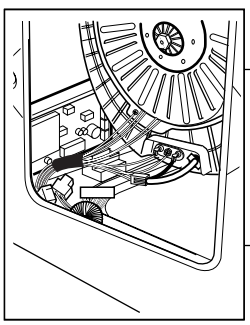


Is softener put in the correct compartment of the drawer?
- NO → Put it in the correct compartment.
- YES ↓



Is the softener cap clogged?
- YES → Clean the cap and drawer.

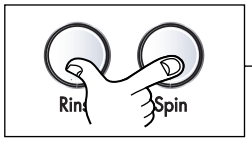
ABNORMAL SOUND



Is the motor bolt loosened?
- YES → Fix the bolt tightly.
- NO ↓

Is there friction noise from the motor?
- YES → Replace the STATOR ASSEMBLY or ROTOR ASSEMBLY.

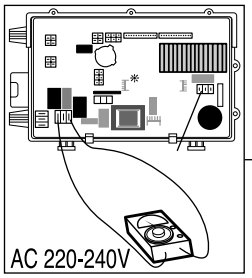
HEATING WITHOUT WATER



When pressing Wash and Rinse at the same time after draining, is the water level frequency 248 ~ 262 or more?
When pressing Rinse, Spin buttons at the same time while wash, is the water level frequency between 230 - 243?

NO → Replace the S.PRESSURE SWITCH ASSEMBLY

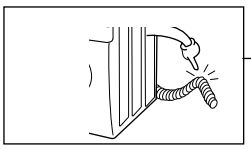
YES



Checking voltage between two pins as press the POWER button is the voltage 220-240V~?

YES → Replace the MAIN PWB ASSEMBLY

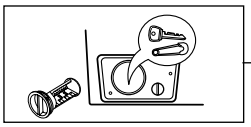
DRAIN MALFUNCTIONING



Is the drain hose twisted or frozen?

YES → Repair the DRAIN HOSE ASSEMBLY.

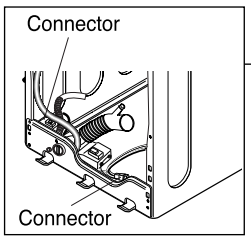
NO



Is the impeller of the drain pump clogged?

YES → Remove foreign material.

NO



Is the connector disconnected, disassembled?

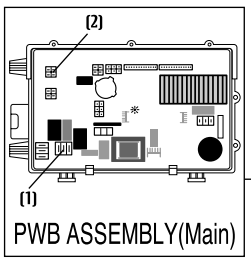
YES → Reconnect or repair the connector

NO

Is the coil of the drain pump cut-off?
(resistance of coil is 80~150Ω)

YES → Repair the DRAIN PUMP ASSEMBLY.

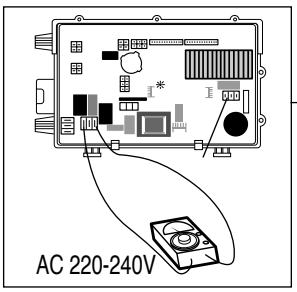
NO



When checking voltage between connectors (①, ②)on spinning, is the voltage 220-240V~ as the figure?

NO → Repair the MAIN PWB ASSEMBLY.

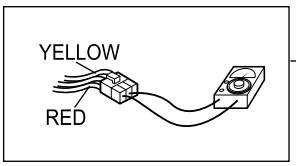
WASH HEATER TROUBLE



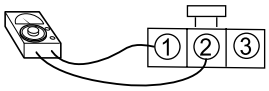
When checking the voltage between connector during whites washing. is the voltage 220-240V~?

NO → Replace the MAIN PWB ASSEMBLY

YES ↓

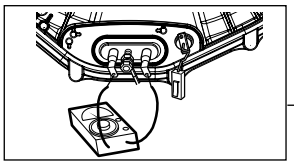


After power off,is the resistance of wire (RED-YELLOW) connectors between 10Ω~30Ω?



YES → Normal

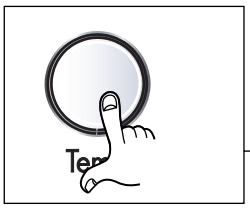
NO ↓



After power off and the heater terminal is disconnected, is the resistance 10~30Ω?

NO → Replace the HEATER ASSEMBLY

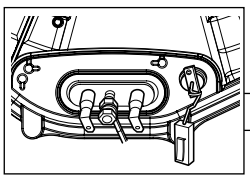
HEATING CONTINUOUSLY ABOVE THE SETTING WATER TEMPERATURE



When pressing Water Temp. during, is the displayed temperature is over 10˚C higher than the selected temp?

NO → Check if inlet hose is connected to a hot faucet ; otherwise, replace PWB ASSEMBLY(Main)

YES ↓



Is the resistance between Thermistor Comectors 2.5kΩ~180kΩ?

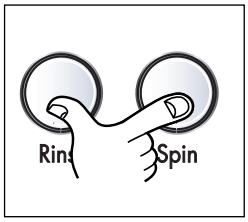
NO → Replace Thermister

YES ↓

When checking THERMISTOR on the tub is the THERMISTOR loosened above 2mm from the rubber?

YES → Push the THERMISTOR tightly to the rubber.

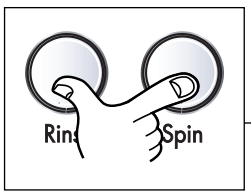
SPIN TROUBLE



Check on the spinning, is the frequency of the water level 248 or more. The frequency can be checked by pressing the Wash and Rinse buttons at the same time on the program.

NO → Check the S.PRESSURE SWITCH ASSEMBLY or HOSE (Pressure). If the problem is on the S.PRESSURE SWITCH ASSEMBLY or the HOSE, replace the S.PRESSURE SWITCH ASSEMBLY or the HOSE.

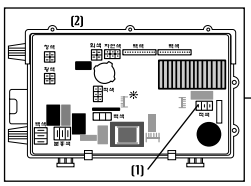
YES



When pressing Rinse, Spin and POWER buttons at the same time after power off, press the Start/Pause button 1 times, is the drum low speed spin?

YES → Normal

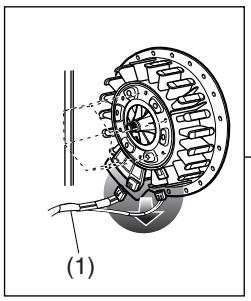
NO



Is it disconnected, or disassembled?
[Red:3pin(1), GY:4pin(2)]

YES → Correct the connector.

NO



Check the motor connector, is the resistance of the terminal same as the figure?

MOTOR TERMINAL (1)

①	②	③

Resistance of terminal:

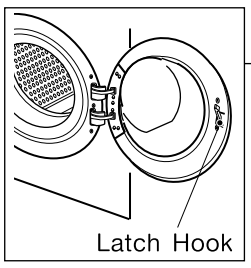
①~② / ②~③ / ③~① : About 5Ω~15Ω

NO → Replace the STATOR ASSEMBLY

YES

Replace the MAIN PWB ASSEMBLY

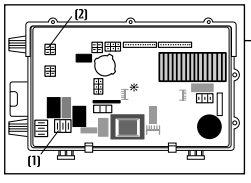
dE ERROR



Does the spring of Latch Hook actuate?

NO → Replace Door Assembly.

YES



Is there clicking sound once or twice when the **START/PAUSE** button is pressed to start the cycle?

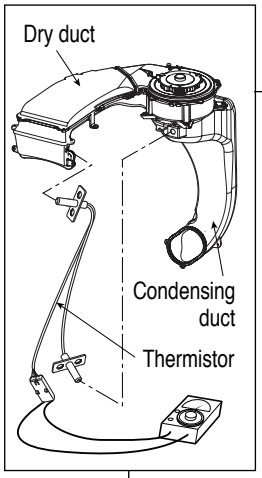
NO → Check the DOOR SWITCH ASSEMBLY Connector and MAIN PWB ASSEMBLY (Red 3 pin, Yellow 4 pin and white 3 pin connector (1)).

YES

Is DOOR SWITCH ASSEMBLY broken?

YES → Replace the DOOR SWITCH ASSEMBLY.

[dHE] ERROR DISPLAY



Is the resistance of 1 thermistors on dry duct 2.5kΩ ~ 180kΩ (at 105°C ~ 0°C)

NO → Replace the thermistor. (6322FR2046B)

YES

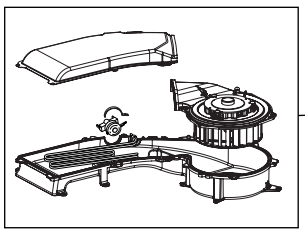
CHECK FOR DRY HEATER TROUBLE

CHECK FOR DRY FAN MOTOR TROUBLE

Disassemble the cabinet cover and condensing bellows.
Is there any foreign object in condensing bellows.

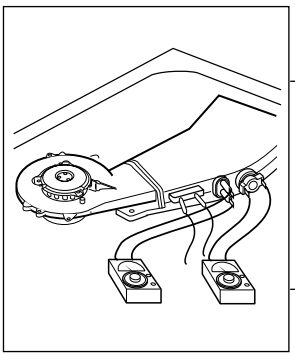
YES → Clean the bellows

NO



Disassemble the dry fan assy and dry duct upper, and clean foreign object in duct and fan.

DRY HEATER TROUBLE



After power off, is the resistance of dry heater 10 ~ 40Ω?

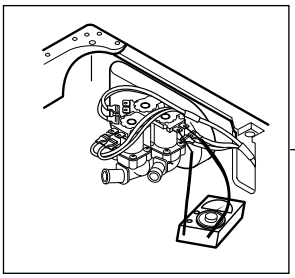
NO → Replace the dry heater.

YES ↓

Is thermostat closed?

NO → Replace the thermostat.

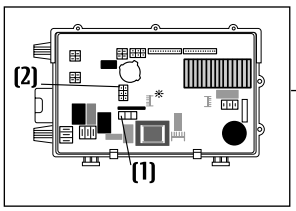
YES ↓



When checking voltage between connectors (① , ②) on drying, is the voltage AC 220-240V as the figure? (wire color : ① - Red, ② - Blue)

NO → Replace the PWB ASSEMBLY(Main)

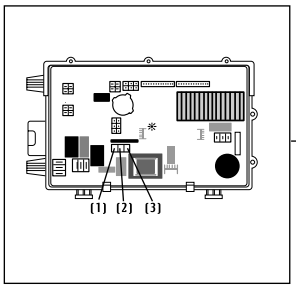
DRY FAN MOTOR TROUBLE



Is it disconnected, or disassembled?
【(1) - White, 3pin (2) - Red 6pin】

YES → Reconnect or repair connector.

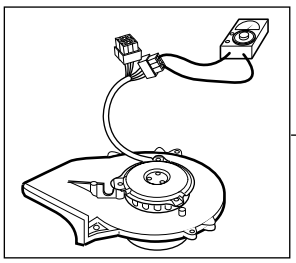
NO ↓



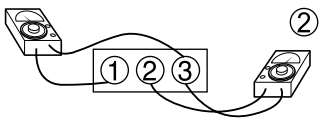
When checking voltage between connectors 【(1)~ (2), (2) ~ (3)】 on drying, is the voltage DC 20~30V as the figure?.
【wire color : (1) - White, (2) - Black
(3) - Yellow】

NO → Replace the PWB ASSEMBLY(Main)

YES ↓

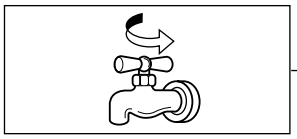


Check the motor connector, is the resistance of terminal same as the figure?
Resistance of terminal : ① - ③ : 2~5Ω
② - ③ : 2~5Ω



NO → Replace the DRY FAN ASSEMBLY.

LOT OF VAPOR IN DRAWER WHEN DRYING

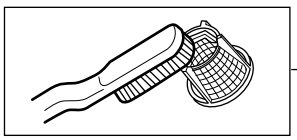


Isn't the water supply shut-off?

NO

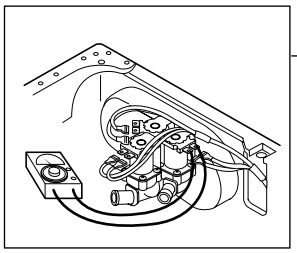
Is tap opened? **NO** → Open the tap.

YES



Isn't the inlet valve filter clogged with impurity? **YES** → Clean the filter.

NO



Is resistance of the inlet valve terminal between 2 to 8 k Ω? **NO** → Replace the inlet valve. (5220FR2075B)

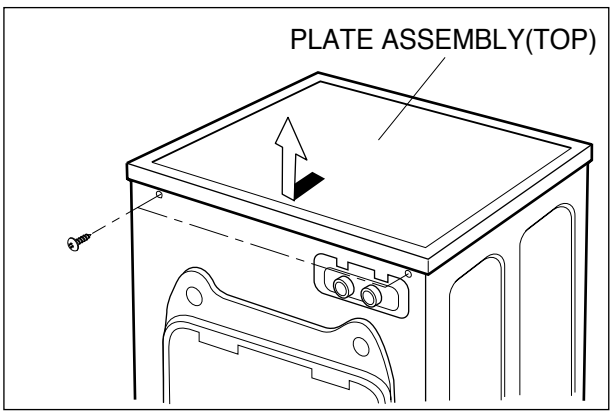
YES

Check if the voltage of each terminal of Inlet Valve is AC 220-240V~. (Refer to 7.TEST MODE) **NO** → Replace PWB ASSEMBLY(Main)

9. DISASSEMBLY INSTRUCTIONS

* Disassemble and repair the parts after pulling out power cord from the outlet.

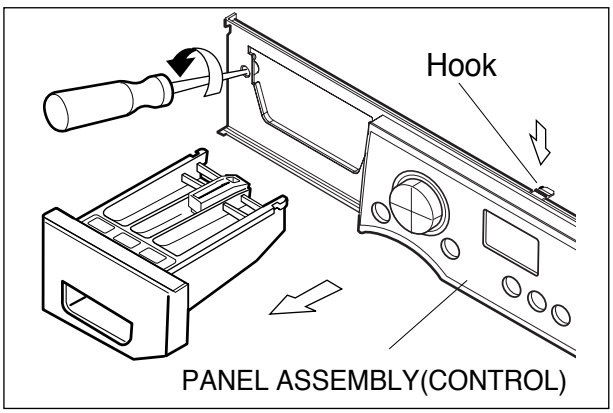
CONTROL PANEL



① Unscrew the screws on the top plate.

② The plate assembly(Top) is pulled back and then upward to arrow direction.

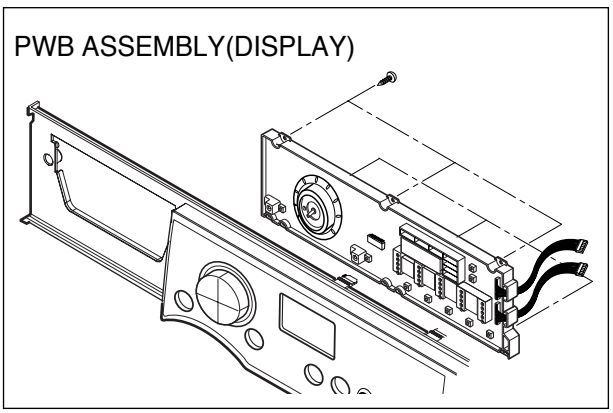
③ The cover(Inner) is disassembled.



① The PWB assembly(Display) connectors are disconnected.

② Pull out drawer, three screws are unscrewed.

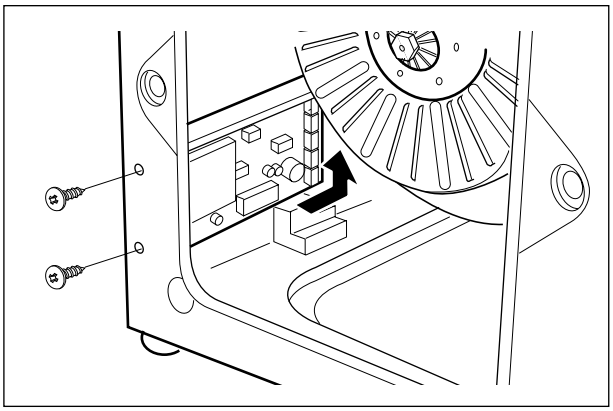
③ Push two upper hooks and pull the control panel forward.



① The PWB assembly(Display) is disconnected.

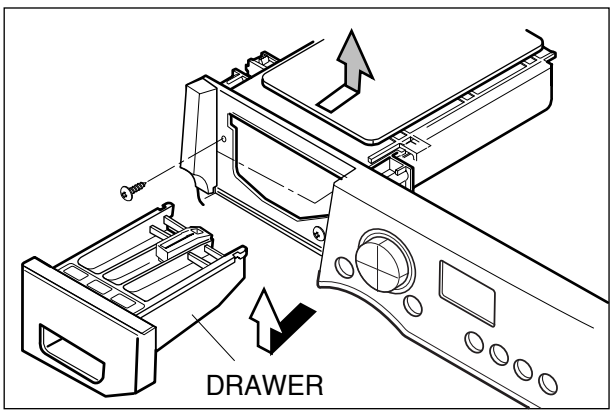
② When 6 screws are unscrewed on the PWB insulator and the PWB assembly(Display) is disassembled from the PWB insulator.

PWB ASSEMBLY(MAIN)

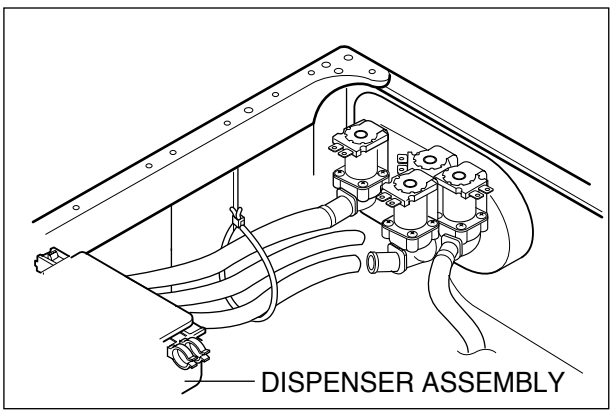


① The back cover is removed.
② Two screws are unscrewed.
③ Disconnect connector from the wiring.
④ Pull the PWB assembly (Main) to arrow direction.

DISPENSER ASSEMBLY

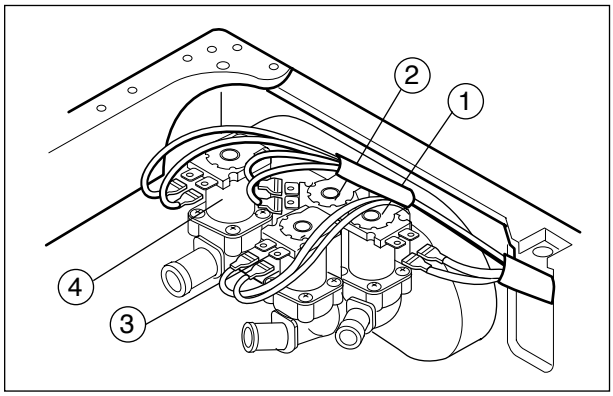


① The plate assembly(Top)and the cover(lnner)are disassembled.
② Pull the drawer to arrow direction.
③ Two screws are unscrewed.



① The hose clamps and the hose are disassembled.
② The ventilation bellows are disassembled on the tub.

INLET VALVE



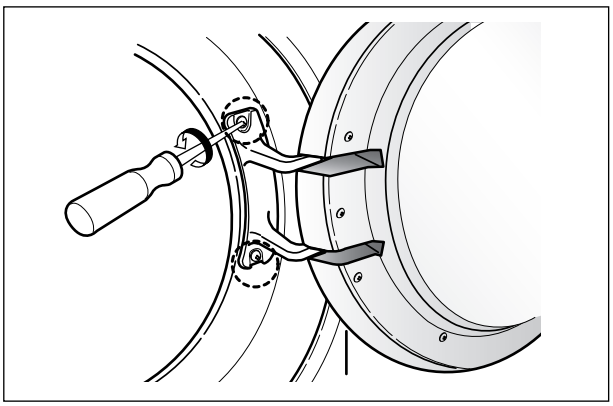
① Disconnect the wiring connector.

② Remove the valve by two screws of the valve holder.

* When reconnecting the connector

VALVE ① (DRY)	YL/BK - BK
VALVE ② (PRE-WASH)	GY/WH - BK
VALVE ③ (NORMAL-WASH)	WH/BK - BK BL/RD - BK
VALVE ④ (HOT)	BL/RD - BK

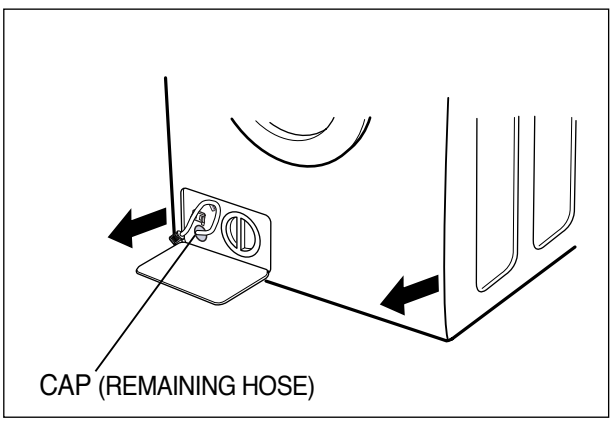
DOOR



① Open the door completely.

② Remove the two screws from the hinge.

※ When removing the Door Assembly, it is necessary to hold the Bracket that is inner of the Cabinet Cover.

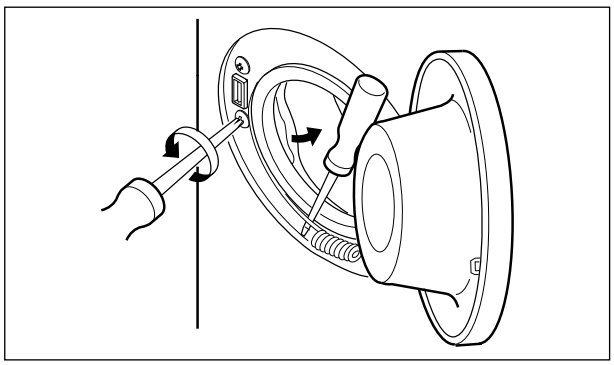


Removing method of remained water

Pull it out from hose.

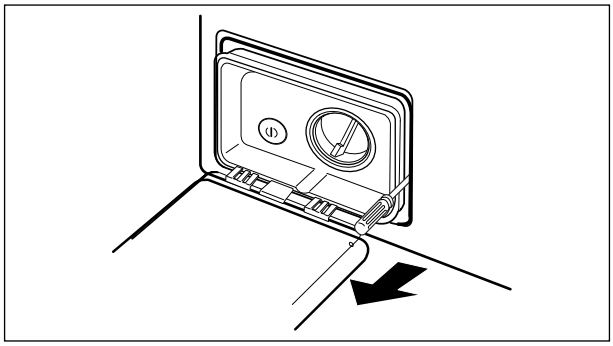
※ First, prepare a bucket to put in the remained water.

GASKET ASSEMBLY

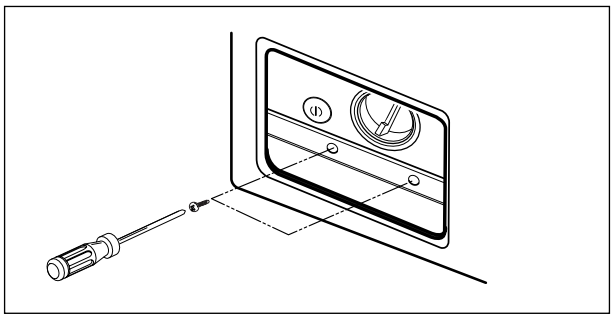


① The cabinet gasket clamp is released.

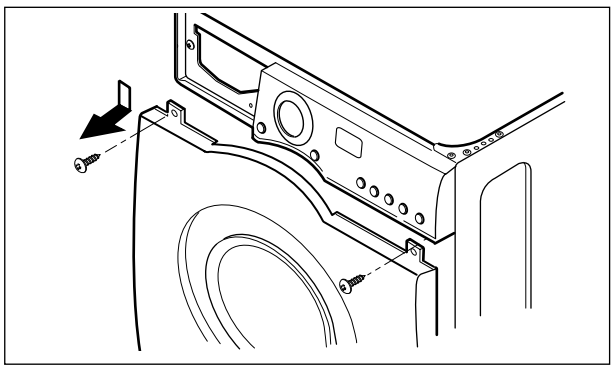
② Two screws are unscrewed from the cabinet cover.



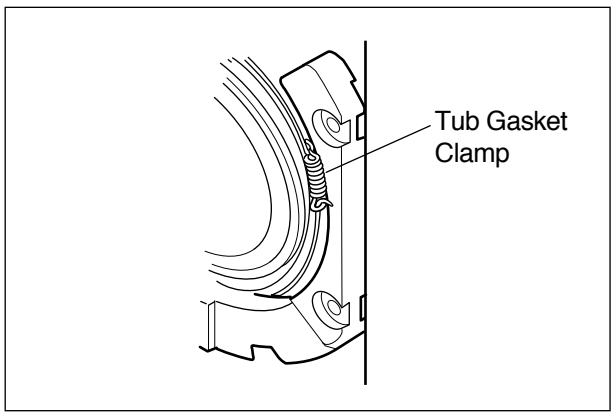
① Pull plat(−) screwdriver or pully knife into the both sides of filter cover, and pull in out.



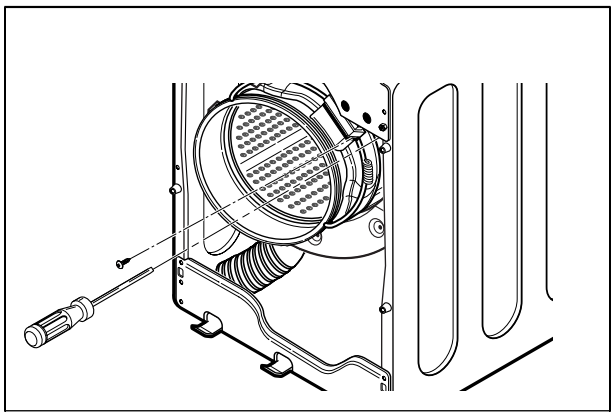
① Unscrew the screw from the lower side of the cabinet cover.



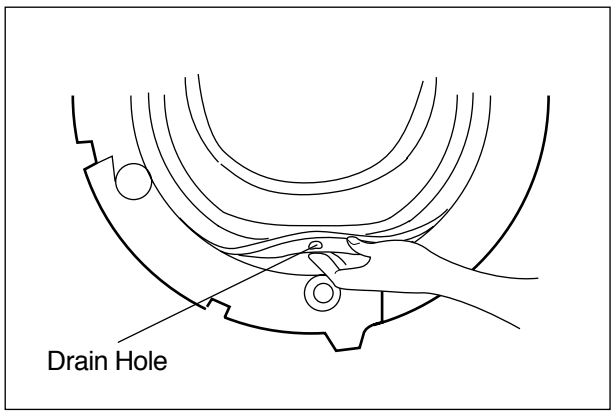
① Unscrew the 2 screw from upper of the cabinet cover.



① Disassemble the clamp assembly.

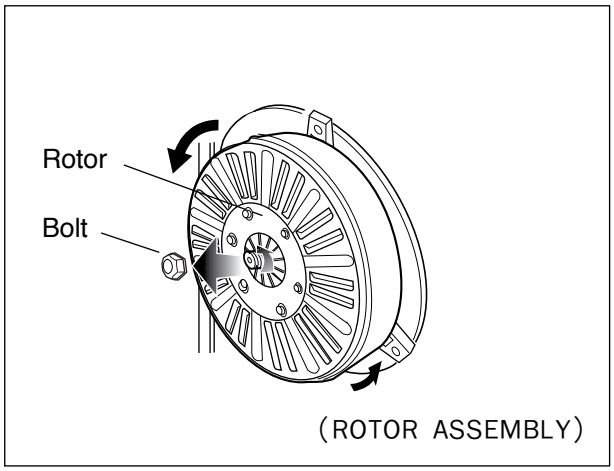


① Remove dry gasket clamp by loosening the screw.



① When reassembling the gasket, put the drain hole of the gasket downward, then assemble.

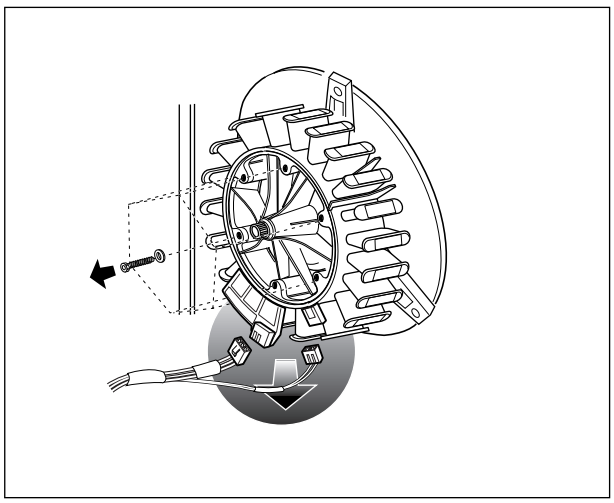
ROTOR ASSEMBLY, STATOR ASSEMBLY, FRICTION DAMPER



(ROTOR ASSEMBLY)

① Remove the back cover.

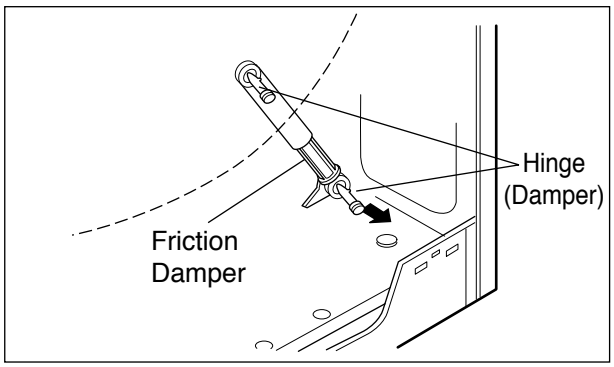
② After loosening the bolt, Rotor, pull out the rotor.



(STATOR ASSEMBLY)

① Remove the 6 bolt from the stator.

② Disconnect the 2 connectors.



(FRICTION DAMPER)

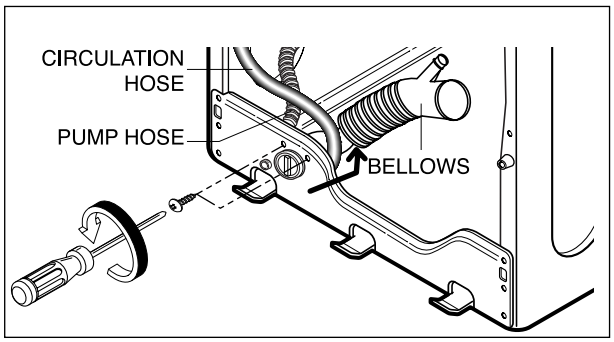
① Remove the hinges (Damper) at the Tub.

② The Hinge(Damper) at the base is pulled off pressing on the snaps at the sharp end.

③ The hinge at the base is pulled off.

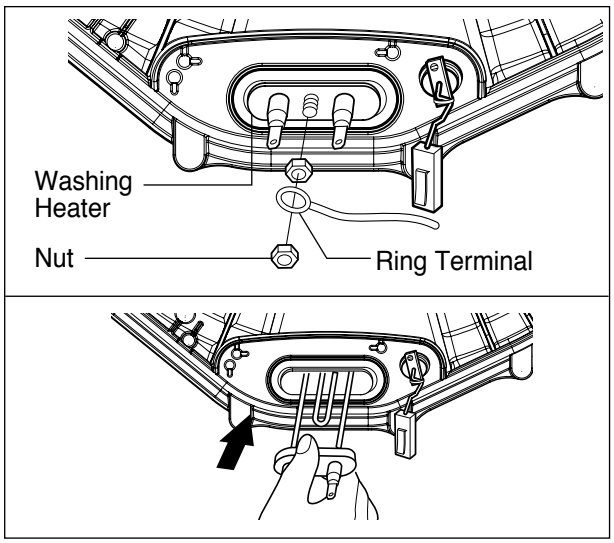
(To arrow direction)

PUMP



① Remove pump outlet hose.
② Remove tub pump bellows.
③ Remove cap(Remaining Hose).
④ Disconnect the wiring.
⑤ Three screws are unscrewed from the cabinet.
⑥ Remove the pump to arrow direction.

HEATER

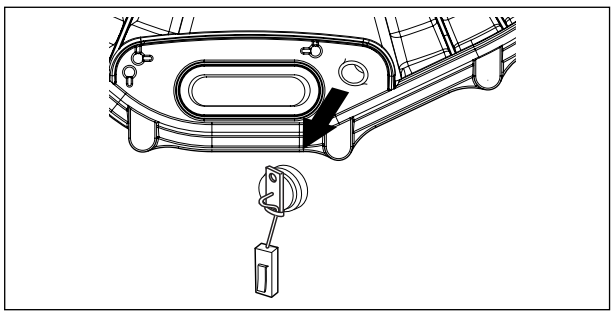


① Loosen the nut.
② Remove washing heater by pulling out.

CAUTION

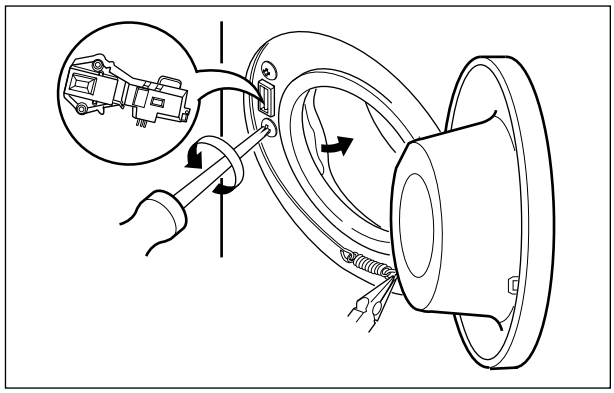
When assembling the washing heater, insert the heater to heater clip on the bottom of tub.

THERMISTOR



① Pull it out by holding the thermistor bracket.
* If holding the wire and pulling out it, it may be broken.

SWITCH ASSY, DOOR LOCK

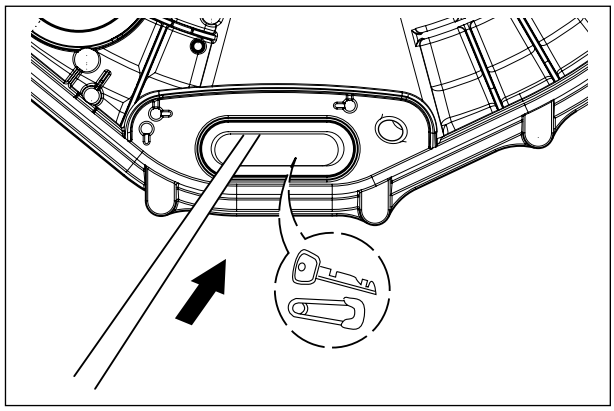


① The cabinet cover clamp is removed and the gasket is released.

② Two screws are unscrewed.

③ The door lock S/W is disconnected form the wiring connector and the strap.

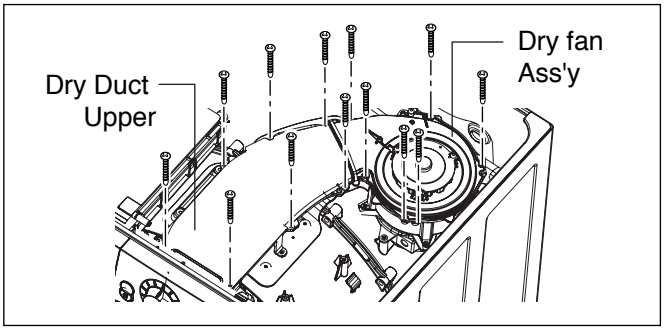
WHEN FOREIGN OBJECT STUCK BETWEEN DRUM AND TUB



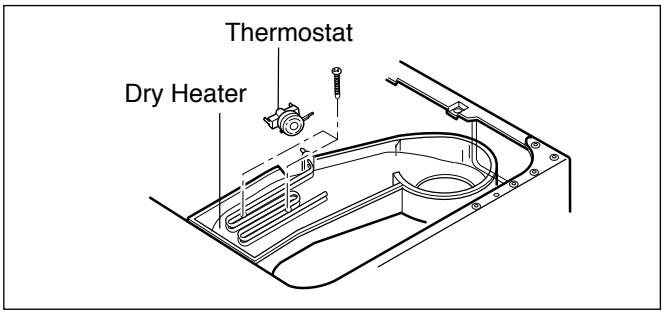
① Remove washing heater.

② Remove the foreign object(wire,coin,etc) by inserting long bar in the hole.

DRY DUCT

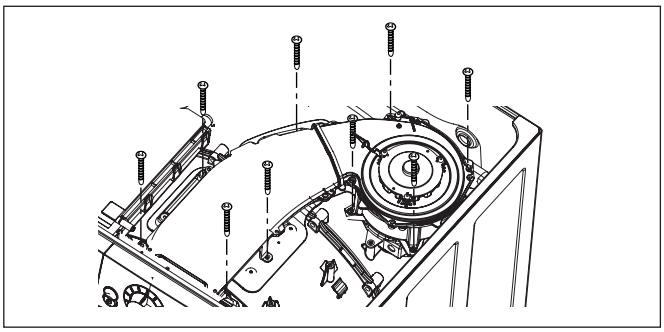


① Remove 6 screws and dry fan assembly.
② Remove 7 screws and dry duct upper.

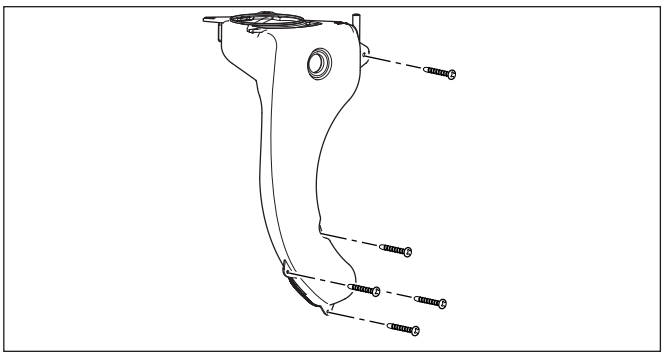


① Remove 2 screws and dry heater.
② Remove thermostat.

CONDENSING DUCT



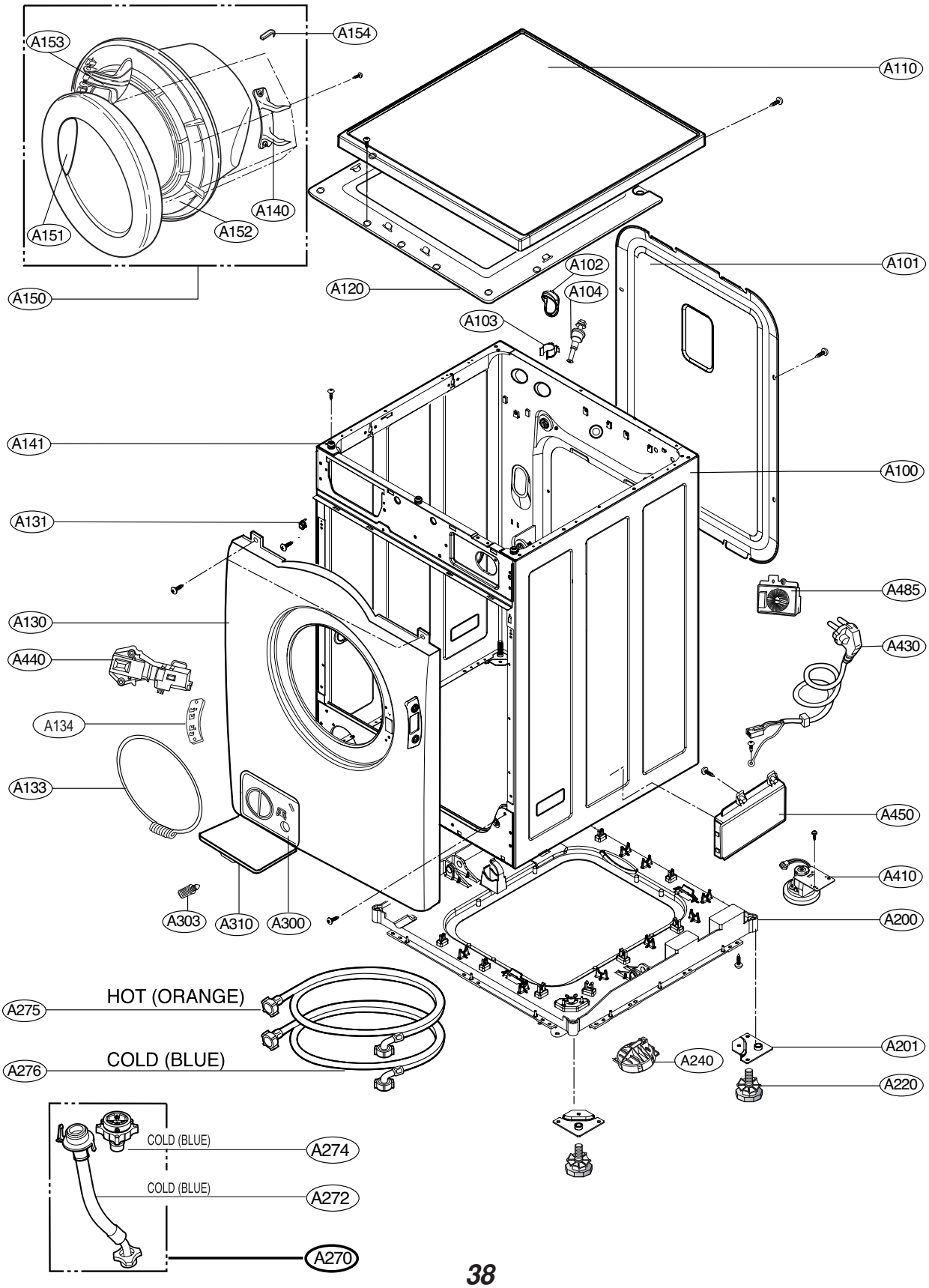
① Remove 17 screws from Dry duct upper and Dry fan Assembly.



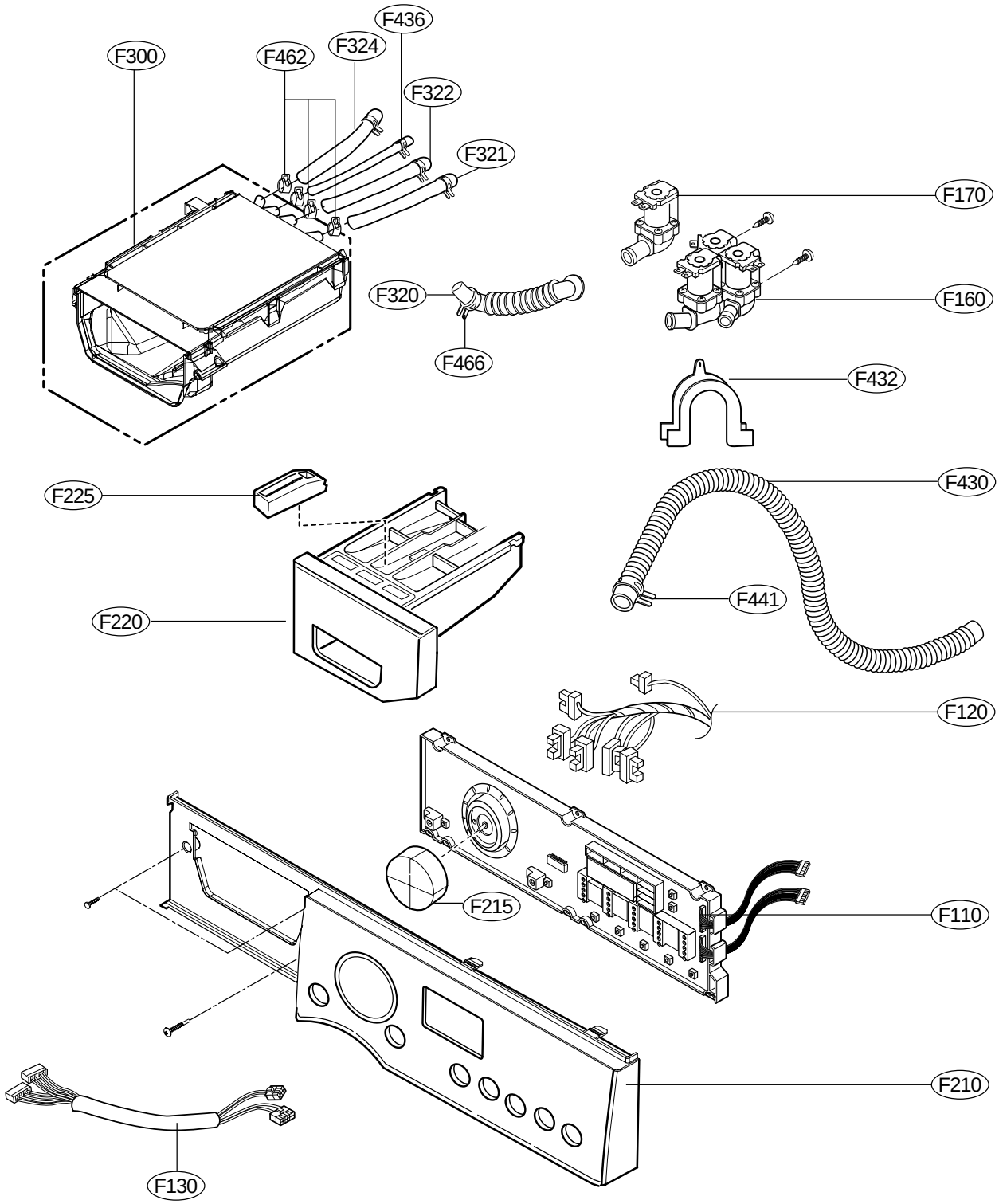
① Remove 5 screws and condensing duct.

10. EXPLODED VIEW AND PART LIST

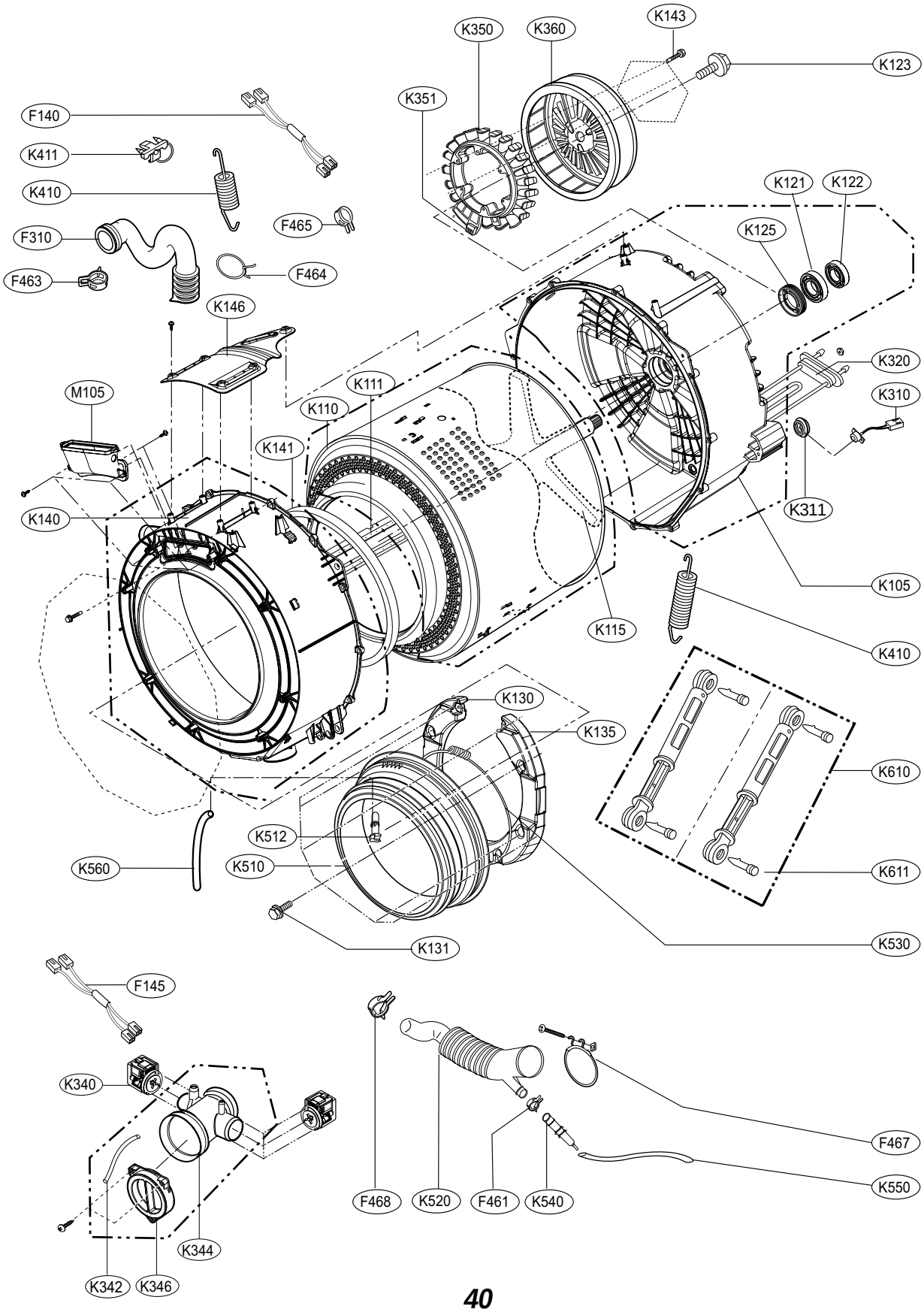
10-1.THE PART LIST OF CABINET ASSEMBLY



10-2 THE EXPLODED VIEW OF CONTROL PANEL & DISPENSER ASSEMBLY



10-3 THE EXPLODED VIEW OF DRUM & TUB ASSEMBLY



10-4 THE EXPLODED VIEW OF DRYER